

CLAIMS:

1. A method of processing an input digital video signal (IS) comprising video frames so as to provide a modified digital video signal (MS) for a motion estimation step (ME), characterized in that said processing method comprises the steps of:

- computing (HIS) a histogram (h) of original values associated with pixels belonging to a video frame,
- analyzing (ANA) the histogram to provide histogram parameters (hp), and
- correcting (COR) the original pixel values on the basis of the histogram parameters to provide modified pixel values, which yields the modified digital video signal to be used by the motion estimation step.

2. A method of processing as claimed in claim 1, characterized in that the analysis step (ANA) comprises a sub-step of calculating a translation parameter of the histogram, and the correction step is adapted to derive the modified pixel values from a sum of the original pixel values and the translation parameter.

3. A method of processing as claimed in claim 1, characterized in that the analysis step (ANA) comprises a sub-step of calculating a width variation parameter of the histogram, and the correction step is adapted to derive the modified pixel values from a product of the original pixel values and the width variation parameter.

4. A method of processing as claimed in claim 3, characterized in that it comprises a step of filtering (FIL) the modified digital video signal (MS) so as to provide a filtered modified digital video signal (FMS) for the motion estimation step.

5. A method of encoding an input digital video signal (IS) comprising the steps of:

- pre-processing (PP) the input digital video signal so as to provide a modified digital video signal (MS),

- estimating motion (ME) from the modified digital video signal so as to provide motion vectors (MV),
- compressing (DC) the input digital video signal from the motion vectors so as to provide an encoded digital video signal (ES),

5 characterized in that the pre-processing step comprises the sub-steps of :

- computing (HIS) a histogram (h) of original values associated with pixels belonging to a video frame,
- analyzing (ANA) the histogram to provide histogram parameters (hp), and
- correcting (COR) the original pixel values on the basis of the histogram

10 parameters to provide modified pixel values, which yields the modified digital video signal to be used by the motion estimation step.

6. A video encoder comprising :

- a pre-processing device (PP) for receiving an input digital video signal (IS) and for supplying a modified digital video signal (MS),
- a motion estimator (ME) for receiving the modified digital video signal and for supplying motion vectors (MV),
- a data compressor (DC) for receiving the input digital video signal and for deriving an encoded digital video signal (ES) from the motion vectors,

20 characterized in that the pre-processing device comprises :

- means for computing (HIS) a histogram (h) of original values associated with pixels belonging to a video frame,
- means for analyzing (ANA) the histogram in order to provide histogram parameters (hp), and

25 - means for correcting (COR) the original pixel values on the basis of the histogram parameters and adapted to provide modified pixel values, which yields the modified digital video signal for the motion estimator.

7. A computer program/product for a video encoder that comprises a set of instructions, which, when loaded into the video encoder, causes the video encoder to carry out the processing method as claimed in claims 1 to 4.

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